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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/663,397  
Filing Date: September 16, 2003  
Appellant(s): KOELZER, ROBERT L.

Wesley E. Whitmyer, Jr.  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 4/24/2008 appealing from the Office action mailed 6/04/2007.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

No amendment after final has been filed.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

### **(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

### **(8) Evidence Relied Upon**

DE 3529743	Altmann	02-1987
US 6089831	Bruehmann et al	07-2000
US 5613744	Eslinger et al	03-1997
US 6439857	Koelzer et al	8-2002

### **(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

Claims 69-73, 76-79 and 91 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE 3529743 in view of Bruehmann et al (US#6089831).

DE 3529743 discloses a system including; an engine 10, a supply device driven by said engine; a motor driven by the agency supplied by said supply device, a brake power source driven by said motor; a brake system powered by said brake power source; and a controller 53 in communication with said supply device, said controller having at least one input for receiving signals containing information about the vehicle; wherein said controller determines the rate at which to cause said supply device to supply the agency to said motor, thereby causing said motor to drive said brake power

source at a desired rate. Note column 5, lines 5-25 as well as sensors 10a, 112 and control devices 96 and 104. DE 3529743 lacks the explicit disclosure of receiving an input reflecting air pressure (claim 69) and/or air dryer temperature (claim 91). Air pressure and temperature are well known in the art and further demonstrated by Bruehmann et al for controlling compressor operation. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize information pertaining to air pressure or air temperature as known and further taught by Bruehmann et al in the system of DE 3529743 to ensure proper air pressure necessary for operation or maintain air temperature within acceptable limits, thereby preventing damage to the system.

Regarding claim 70, see hydraulic pump 95 and hydraulic motor 100.

Regarding claim 71, see the reservoir 13.

Regarding claim 72, see input 10a and 89.

Regarding claim 73, note that engine speed is reflective of the throttle position as broadly required by the claim.

Regarding claim 77, note input 112.

Claims 74, 82-86 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE 3529743 and Bruehmann et al (US# 6089831), as applied to claim 69 above, in further view of in view of Eslinger et al (US# 5613744).

Regarding claim 74, DE 3529743 and Bruehmann et al disclose all the limitations of the instant claims with exception to the input of information relating to wheel speed. It

is well known in the art and further taught by Eslinger et al to utilize wheel speed to control braking systems. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include wheel speed as taught by Eslinger et al as an input in the system of DE 3529743 to allow for ABS braking controls, thereby increasing the safety of the system.

Regarding claim 82, DE 3529743 and Bruehmann et al disclose all the limitations of the instant claims with exception to the particulars of the brake system. Eslinger et al teach an air braking system including a braking mechanism 18, a valve 30 and/or 38 connecting the reservoir to the braking mechanism, and a valve actuator connected to the valve (valve actuators are necessarily inherent for electrically controlled valves to operate). It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize a reservoir, brake mechanism, valve and valve actuator as taught by Eslinger et al as an obvious means of carrying out braking actuation in the system of DE 3529743, thereby providing controllable brake operation. Regarding claims 83 and 84, The Examiner takes Official Notice that floating calipers and fixed calipers are well known in the art and recognized alternative structures suitable for an intended purpose. Eslinger et al further teach a brake shoe as well as the broad “caliper”. Column 2, lines 60-65. It further would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize floating or fixed calipers or brake shoes in the system of DE 3529743 and Eslinger et al as known in the art and obvious alternative structures for brake actuation. Also note *Ryco, Inc. v. Ag-Bag Corp.*, 857 F.2d 1418, 8 USPQ2d 1323 (Fed. Cir. 1988).

Claims 80-81 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE 3529743 and Bruehmann et al (US# 6089831), as applied to claim 79 above in view of Koelzer et al (6439857).

DE 3529743 and Bruehmann et al disclose all the limitations of the instant claims with exception to the explicit disclosure of the details of the air compressor. Swash plate compressors are well known in the art and further taught by Koelzer et al in the brake environment. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize a swash plate compressor as known in the art and further taught by Koelzer et al in the system of DE 3529743 as an obvious means of providing compressed air with a compact and structurally simple unit. Also note *Ryco, Inc. v. Ag-Bag Corp.*, 857 F.2d 1418, 8 USPQ2d 1323 (Fed. Cir. 1988).

## **(10) Response to Argument**

**Regarding the rejection over DE 35 29 743 (Applicant Bosch, Inventor Altmann) in view of Bruehmann:**

### **Claim 69**

The Examiner maintains that Bosch discloses controlling a supply device with an electronic control unit 53. In the embodiment of figure 1, supply device 11 and 33 control the supply of agency (fluid) to motor 27 which is connected to the brake compressor 28. This supply device is controlled by electronic control unit 53. In the

embodiment of figure 4, supply device 95-96 are controlled by ECU 53 to control the supply of agency (fluid) to the motor 27 of the brake compressor 28. Either embodiment is readable on the claim language. Bosch lacks only the control input reflecting the air pressure.

Regarding Bruehmann, it is maintained that the reference demonstrates knowledge of basic concept of control of the drive of a brake compressor based on air pressure. It is further maintained that Bruehmann shows a similar arrangement that utilizes a mechanical clutch 12 to control the supply of power from a supply device 10 to a brake compressor 11 instead of the hydrostatic system of Bosch. Bruehmann further teaches the use of an input reflecting air pressure (via sensors 54.1-54.3) to control the engagement of clutch 12. For instance Bruehmann teaches uncoupling the compressor when full power is required by a vehicle and recoupling if the pressure drops impermissibly low (col. 7, lines 20-36). It is maintained that the rejection is proper.

Appellant's arguments regarding the "intermediary assembly" appear narrower than the claim language, however, it is maintained that Bosch in view of Bruehmann disclose these features as well.

### **Claim 91**

Bosch is relied upon in the same manner as for claim 69. Bruehmann demonstrates knowledge of basic concept of control of the drive of a brake compressor based on the temperature of an air dryer. It is further maintained that Bruehmann shows a similar arrangement that utilizes a mechanical clutch 12 to control the supply of

power from a supply device 10 to a brake compressor 11 instead of the hydrostatic system of Bosch. Bruehmann further teaches the use of an input reflecting the temperature in an air dryer (column 8, line 1) to the device. The temperature of the air supplied by the compressor can be considered “reflecting” the temperature in the air dryer as the compressed air is supplied to the air dryer 18. It is maintained that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Bosch to include the additional control input of temperature as taught by Bruehmann to maintain proper operation of the brake system.

**Regarding the rejection over DE 35 29 743 (Applicant Bosch, Inventor Altmann) in view of Bruehmann, in further view of Eslinger:**

Appellant's arguments rely the claims' dependence to independent claim 69. It is maintained that the rejection is proper.

**Regarding the rejection over DE 35 29 743 (Applicant Bosch, Inventor Altmann) in view of Bruehmann, in further view of Koelzer:**

Appellant's arguments rely the claims' dependence to independent claim 69. It is maintained that the rejection is proper.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

BTK

/Bradley T King/

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